

**DNA MOLECULES AND PROTEIN DISPLAYING IMPROVED
TRIAZINE COMPOUND DEGRADING ABILITY**

Abstract of the Disclosure

- 5 This invention relates to the identification of homologs of atrazine chlorohydrolase and the use of these homologs to degrade *s*-triazine-containing compounds. In particular, this invention includes the identification of homologs of atrazine chlorohydrolase encoded by a DNA fragment having at least 95% homology to the sequence from the nucleic acid sequence beginning at position
- 10 236 and ending at position 1655 of SEQ ID NO:1, where the DNA fragment is capable of hybridizing under stringent conditions to SEQ ID NO:1 and has altered catalytic activity as compared with wild-type atrazine chlorohydrolase.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100